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ABSTRACT

The report of sampling techniques used in "A Study of the Sustaining Effects of Compensatory Education on Cognitive Skills" is briefly summarized. The sustaining Effects Study is a large, multi-faceted national study of issues in the compensatory education of elementary school students. Data describing the characteristics of the students and schools included in the sample are presented. Statistical analyses of compensatory education funds, school characteristics and achievement; poverty and achievement; and minority membership and achievement are given. Variables associated with the mobility of the student populations, and the availability of summer school programs are also discussed. (HV)

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OVERVIEW OF REPORT #1: THE SAMPLE FOR THE SUSTAINING EFFECTS STUDY AND PROJECTIONS OF ITS CHARACTERISTICS TO THE NATIONAL POPULATION

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OVERVIEW OF TECHNICAL REPORT # 1 FROM THE STUDY OF THE SUSTAINING EFFECTS OF COMPENSATORY EDUCATION ON BASIC SKILLS

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OVERVIEW

This is the first technical report of "A Study of the Sustaining Effects of Compensatory Education on Cognitive Skills." The first six chapters of the report, of particular interest to evaluation and research specialists, describe in technical detail the samples and how they were formed. Chapter VII presents the results of a survey completed by 4,750 principals of public schools with grades in the 1-6 range. Data are provided that allow accurate descriptions of the nation's public schools with grades 1-6 in terms of characteristics of the school, the kinds of services the schools provide to students, and the characteristics of the students. The interrelationships among these characteristics are also presented. This part of the report will be of special interest to readers concerned with problems of educational policy.

The Sustaining Effects Study

The Sustaining Effects Study is a large, multi-faceted study of issues in the compensatory education of elementary school children. The different parts of the study can be summarized as follows:

The Longitudinal Study. In the Longitudinal Study, the educational achievements of a large number of children will be assessed in the fall and spring for three consecutive years. The children will take an achievement test in reading and mathematics, a functional literacy test, and a measure of attitude toward school and toward themselves as students. The amount and nature of instruction in reading and mathematics will be determined for each student four times during the school year. In addition, teachers and principals will report on their theories and practices of instruction and teaching. Thus, it will be possible not only to assess student growth over a three-year period, but to relate this growth to the kinds and amounts of instruction being received.

The schools in the study were drawn from three different groups. The **Representative Sample** of schools is a sample carefully drawn to represent all of the nation's public schools having some of the grades one through six. A second group of schools, the **Comparison Sample**, is composed of schools that have large proportions of students from high-poverty-level homes, but do not receive special funds to offer compensatory-education services. The third group is the **Nominated Sample**, composed of schools that were nominated because their instructional programs were thought to have promise as being unusually effective for low-achieving students. During the first operational year of the study, data will be collected from 343 schools and about 118,000 students.

The Cost/Effectiveness Study. Information is being obtained on the resources and services to which each student is exposed during reading and mathematics instruction. The costs of the resources and services are also being obtained. Because the effectiveness of the instructional programs will be determined as part of the Longitudinal Study, it will be possible to relate that effectiveness to the cost of each program.

The Participation Study. The purpose of the Participation Study is to determine the relationships among economic status, educational need, and instructional services received. The educational achievement of the students and the services they receive will be obtained in the Longitudinal Study, but the refined measures of economic status will be obtained in the Par-

ticipation Study. A random sample of 15,000 students will be drawn and visits will be made to the homes of these students. During the visits, information will be collected on the economic level of the home and on the parents' attitudes toward their child's school and learning experiences. Thus, the level of student achievement and services received can be related to the economic level of the home from which the student comes.

The Successful Sites Study. At the end of the second year of the Longitudinal Study it will be possible to identify those schools that have been particularly successful in raising the achievement of their students. A sample of the most successful schools will be visited and studied in depth to identify the practices and programs that lead to student success. The programs will be described in detail so they can be considered for adoption at other schools.

The Definition and Selection of the Samples

Chapter I describes the details of the sampling plan, and outlines the requirements of the sample in terms of the design of the study. Chapter II describes the Principal Sample and shows the way in which 5,035 schools were selected to provide a representative sample of public schools in terms of their geographic region, their size, and their poverty level. Chapter III describes the Respondent Sample; that is, the characteristics of those schools from which completed survey questionnaires were received. Of the 5,035 schools to which the survey was sent, information was obtained from 5,010; this is an exceptionally high response rate, but one which was essential to demonstrate that the final sample was truly representative. Of these, 4,750 schools were considered eligible. Chapter IV describes the way in which the final sample of 243 representative schools was selected, and reports many statistical tests that were applied to determine the extent to which these schools represent the nation's schools. Of all the tests applied, none reached a level of statistical significance that would indicate that these schools are in any way unrepresentative of the nation's schools. Chapter V describes the selection of the 29 schools with low funding for compensatory education and high student poverty, and the 43 schools that were nominated as having promising educational programs. Chapter VI describes the resulting 343 schools in the combined samples for the first operational year of the study.

A Description of the Nation's Schools Based on the Principal Survey

Through many follow-up letters and telephone calls for the survey questionnaire, response data were obtained for 4,750 eligible schools. These schools, when appropriately weighted, represent a very close approximation to the nation's public schools with grades 1-6, and thus we can report with confidence regarding the national characteristics of such schools. The survey form contained 15 information items and is reproduced in Chapter III. Based on the responses of the principals, an extensive analysis was performed and is reported in terms of seven major areas of interest. The highlights of each area are reported below.

Enrollment, Urbanism, and Achievement. Projections were made that estimated the total grade 1-6 enrollment in the 1975-76 school year as 20,881,979 students. These projections

correspond closely to projections from other sources. The percentage of schools by degree of urbanism is shown below.

Urbanism	Percentage of Schools
City over 500,000	6
City of 200,000 to 500,000	4
City of 50 000 to 200,000	11
Suburb of city	15
City under 50,000	11
Rural area near city	25
Rural area not near city	28

Table VII-3 in Chapter VII shows the relationship between degree of urbanism and school enrollment to be moderately strong, with large cities having larger schools than rural areas, which tend to have small schools.

The principals reported on the percentage of their students who were reading one year or more below grade level, with the following results:

Percentage of Students Reading One Year or More Below Grade Level	Percentage of Schools
0–20	51
21–50	38
51–100	11

The level of student achievement is related to the degree of urbanism in a complex way, as indicated by the following tabulation, based on Table VII-7.

Degree of Urbanism	Percentage of Schools With Half or More Students Reading One Year or More Below Grade Level
City of over 500,000	41
City of 200,000 to 500,000	22
City of 50,000 to 200,000	14
Suburb of city	3
City under 50,000	6
Rural area near city	6
Rural area not near city	12

Compensatory-Education Funds, School Characteristics, and Achievement. The principals reported on whether their schools received compensatory-education funds and, if they did, the nature of those funds. The frequency of receipt of compensatory-education funds is:

Compensatory Funds Received	Percentage of Schools
Title I funds only	26
Title I plus other funds	41
Other compensatory funds only	14
No special compensatory funds	18

There is little relationship between the receipt of compensatory funds and the size of a school, although there is a relationship between degree of urbanism of the school and receipt of compensatory-education funds. Table VII-10 shows that small-city and rural schools tend to receive such funds more frequently than do large city schools. It should be noted that this relationship is relative to the receipt of funds and not to the amount of funds, about which we did not have information.

Schools with high percentages of poverty students tend to receive compensatory-education funds more than do schools with low percentages of poverty students. Nevertheless, a large number of schools with relatively few poverty students receive some compensatory-education funds, as illustrated by these results:

Percentage of Poverty Students	Percentage of Schools Receiving Compensatory Funds
0–20	72
21–50	90
51–100	95

Similarly, a school's receipt of compensatory-education funds is related to the percentage of minority students enrolled in the school.

Percentage of Minority Students	Percentage of Schools Receiving Compensatory Funds
0–19	79
20–49	82
50–79	92
80–100	93

Both poverty and minority status are related to achievement. It is not unexpected that the percentage of students reading one year or more below grade level is related to receipt of compensatory funds, as is shown from Table VII-15:

Percentage of Students Reading One Year or More Below Grade Level	Percentage of Schools Receiving Compensatory Funds
0–20	76
21–50	86
51–100	93

Poverty and Achievement. Principals were asked to report on the number of students in their schools who met the Title I poverty criteria or were eligible to receive free school lunches. The mean percentage of students reported as meeting these conditions was 28 percent, and their distribution by schools is:

Percentage of Students Eligible for Title I or for Free Lunches	Percentage of Schools
0–20	52
21–50	32
51–100	16

Table VII-18 shows that schools with high enrollments tend to have a high percentage of poverty students; Table VII-19 shows both that large cities have a high percentage of poverty students and that there is a relatively high percentage of poverty students in rural areas not near cities.

The relationship between poverty and percentage of students reading one year or more below grade level is quite strong, as is shown by these data from Table VII-22.

Percentage of Students Reading One Year or More Below Grade Level	Percentage of Schools Reporting 51—100 Percent Poverty Students
0—20	4
21—50	18
51—100	66

Table VII-23 relates schools' low-achievement rates, poverty, and receipt of compensatory-education funds. The relationships are quite strong and generally show that, as there is an increase in percent of poverty students and as the percent of students reading one year or more below grade level increases, there is a marked increase in receipt of compensatory-education funds.

Minority Membership and Achievement. Projections of the racial/ethnic composition of the 21 million students in grades 1-6 are shown below.

Racial/Ethnic Group	Percentage of Grades 1-6 Population
American Indian	1
Asian-American	1
Black	16
Spanish Heritage	6
White	76

In Chapter VII it is shown that these percentages correspond very closely with projections from other sources.

There is a significant relationship between the concentration of minority students in a school and the percentage of low-achieving students. For example:

Percentage of Minority Students	Percentage of Schools Reporting Half or More of Their Students Reading One Year or More Below Grade Level
0—19	3
20—49	12
50—79	36
80—100	57

Table VII-27 expands this relationship by relating achievement, minority concentration, and poverty. It shows that, as the percentage of students from minorities and from poverty families increases, the percent of low-achieving students increases.

The Characteristics of Public Schools With Grades 1-6. This section presents information on the characteristics of public schools with grades 1-6 in terms of the frequencies of schools with complete elementary grades, schools with missing upper grades that feed into schools with higher grades, schools that have only lower grades, and schools that have only middle grades. Information is also presented on schools that have combined grades. These characteristics are interrelated and also compared to size of school, degree of urbanism, poverty level, percentage of minority students, and level of achievement. Generally, these relationships are small, although there is a tendency for small-city schools and rural schools to have more combined grades, and a tendency for a greater incidence of combined grades as the concentration of poverty and minority students increases. Similarly, there is a tendency for the incidence of combined grades to increase as the percentage of students reading one year or more below grade level increases.

Three-Year Stability of Student Body. The principals of the schools were asked to provide estimates of the three-year stability (non-mobility) of their student bodies. The results are:

Percentage of Students Remaining in School at Least Three Years	Percentage of Schools
0–60	17
61–80	23
81–100	59

Schools tend to have less stability in their student bodies as the size of the school increases, and there tends to be less stability in large cities. Similarly, stability decreases as the percent of poverty and minority concentration increases. As might be expected, there is also a tendency for the percent of students reading one year or more below grade level to increase as stability of student body decreases.

Summer Schools: Their Availability and Programs. Fifty-one percent of the nation's schools with grades 1-6 have summer-school programs available for their students. Larger schools provide summer-school programs more frequently than smaller schools do. Of those schools surveyed that had summer-school programs, 52 percent had compensatory programs only, 13 percent had regular or enriched programs only, and 35 percent had both types of programs. There is practically no relation between the availability of summer school and a school's level of poverty, minority concentration, or level of achievement of the students. Schools that do not receive compensatory-education funds are slightly more likely to provide summer school for students than schools that do receive such funds. However, if a school has a summer program and receives Title I or other compensatory funds, then such schools are likely to have compensatory education as part of their summer program. If there is a summer-school program, then there is a slight tendency for compensatory programs to be more available as the concentration of poverty students, minority students, and low-achieving students increases.